

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-10. (canceled)

11. (currently amended) A semiconductor device comprising a heat-radiative and metallic support plate;

a plurality of lead terminals having positive terminals connected to said support plate and negative terminals disposed around said support plate;

a first semiconductor stack which has first and second semiconductor elements layered and mounted in turn on said support plate, and a first electrically conductive and radiating solder layer mounted between said first and second semiconductor elements;

a second semiconductor stack which has third and fourth semiconductor elements layered and mounted in turn on said support plate, and a second electrically conductive and radiating solder layer mounted between said third and fourth semiconductor elements; and

a control circuit for controlling the switching operation of said first to fourth semiconductor elements so that said first and fourth semiconductor elements and said second and third semiconductor elements are alternately switched, and thereby when one of said first and second semiconductor elements and one of said third and fourth semiconductor elements are turned on together, the other of said first and second

semiconductor elements and the other of said third and fourth semiconductor elements is turned off together;

wherein said first to fourth semiconductor elements contribute to form a H-type bridge circuit;

each of said first to fourth semiconductor elements is a switching element;

~~said first and second semiconductor elements are electrically connected to each other; and~~

~~said third and fourth semiconductor elements are electrically connected to each other.~~

each positive terminal of said lead terminals is connected to each end of a corresponding side surface in said support plate away from said first and second semiconductor stacks;

each of said first and third semiconductor elements has a bottom electrode electrically connected to said support plate through different brazing materials;

said first semiconductor element has an upper electrode electrically connected to a lower electrode in said second semiconductor element through said first radiating solder layer;

said third semiconductor element has an upper electrode electrically connected to a lower electrode in said fourth semiconductor element through said second radiating solder layer;

each of said second and fourth semiconductor element has a control electrode electrically connected to control electrodes in said control element through different lead wires; and

each of said second and fourth semiconductor elements has an upper electrode electrically connected to said negative terminals through different lead wires.

12. (previously presented) The semiconductor device of claim 11, wherein one of said first and second semiconductor elements in the first semiconductor stack and one of third and fourth semiconductor elements in the second semiconductor stack form a switch of high voltage side in the H-type bridge circuit; and

the other of said first and second semiconductor elements in the first semiconductor stack and the other of third and fourth semiconductor elements in the second semiconductor stack form another switch of low voltage side in the H-type bridge circuit.

13. (previously presented) The semiconductor device of claim 11 or 12, wherein a first electric current flows through said first and fourth semiconductor elements and said support plate when said first and fourth semiconductor elements are turned on;

a second electric current flows through said second and third semiconductor elements and said support plate when said second and third semiconductor elements are turned on; and

said first and second electric currents alternately flow through an electric load.

14-16. (canceled).

17. (previously presented) The semiconductor device of claim 11, wherein said control circuit is mounted on said support plate between said first and second semiconductor stacks.

18. (canceled).

19. (canceled).

20. (currently amended) The semiconductor device of claim ~~19~~ 11, wherein said first and third semiconductor elements are disposed away from each other a longer distance than a size of said first semiconductor element.

21. (currently amended) The semiconductor device of claim ~~19~~ 20, wherein said first semiconductor stack is mounted on said support plate near one side surface thereof; and
said second semiconductor stack is mounted on said support plate near the other side surface thereof.

22. (canceled).

23. (canceled).

24. (currently amended) The semiconductor device of claim ~~23~~ 21, wherein said ~~lead terminals~~ positive terminals are connected to ~~said~~ side surfaces of said support plate near opposite ends of each side surface.

25. (currently amended) The semiconductor device of claim ~~23~~ 24, wherein said side surfaces of said support plate comprises opposed one and the other side surfaces; and
said ~~lead terminals~~ positive terminals are connected to said one and the other side surfaces respectively.

26. (canceled).

27. (new) The semiconductor device of claim 25, wherein said negative terminals comprises a first negative terminal

electrically connected to the upper electrode in said first semiconductor element through a first lead wire,

a second negative terminal electrically connected to the upper electrode in said second semiconductor element through a second lead wire,

a third negative terminal electrically connected to the upper electrode in said third semiconductor element through a third lead wire, and

a fourth negative terminal electrically connected to the upper electrode in said fourth semiconductor element through a fourth lead wire;

said first and third negative terminals are disposed around one side surface of said support plate; and

said second and fourth negative terminals are disposed around the other side surface of said support plate.

28. (new) The semiconductor device of claim 11, wherein the upper electrode in said first semiconductor element is electrically connected to the lower electrode in said second semiconductor element through a first junction;

the upper electrode in said third semiconductor element is electrically connected to the lower electrode in said fourth semiconductor element through a second junction;

a cold cathode fluorescent lighting discharge tube is provided between the first and second junctions and for operation of said discharge tube by AC power; and

each of said first to fourth semiconductor elements is a power semiconductor element through which heavy electric current flows to operate said discharge tube.

29. (new) The semiconductor device of claim 11, further comprising a plastic encapsulant for sealing the whole semiconductor device; and

said lead terminals have outer ends extending out of said plastic encapsulant.

30. (new) The semiconductor device of claim 11, wherein the upper electrode in said first semiconductor element is secured to a bottom surface of said first radiating solder layer through a first brazing material;

the lower electrode in said second semiconductor element is secured on an upper surface of said first radiating solder layer through a second brazing material;

the upper electrode in said third semiconductor element is secured to a bottom surface of said second radiating solder layer through a third brazing material; and

the lower electrode in said fourth semiconductor element is secured on an upper surface of said second radiating layer through a fourth brazing material.